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 March 11, 2016
 Anthro 1218

Chinese War Junk Model: A Representation of the Not-So-Triumphant War Junks of the Opium War Era

While Western vessels are thought to have evolved from log boats (such as dugout canoes), junks are thought to be descendants of bamboo rafts (Van Tilburg, 2007: 54). They most likely evolved from sampans (literally meaning “three planks”), simple boats that have been present since at least the first century CE. By the time of the Tang Dynasty (618-906 CE), ocean-going junks had started conducting trade in ports around the Indian Ocean. The memoirs of the famed explorer Marco Polo (1254-1323) provide one of the earliest written descriptions of junks (Worcester, 1966: 3-5). The word *junk* itself is a product of later



Fig. 1: Profile view of war junk model

European interaction. It is suspected that the word derived from the Portuguese *junco* which in turn came from the Javanese name for local boats *djonq*. The word was adopted to refer to any East Asian vessel regardless of its size and shape. Although the use is more limited nowadays, it is still a very imprecise word and a generic term that is applied to a great variety of Chinese vessel designs (Van Tilburg, 2007: 47). Throughout their history junks have been used for a variety of functions including fishing; riverine, coastal and oceangoing trade; and for warfare. The ship model here discussed (Figure 1), dated to ca. 1840, is likely a representation of a southern Chinese oceangoing war junk from the period preceding the First Opium War.

The model itself was dated thanks to a label from the Peale Museum in Baltimore (the institution that donated the model to the Peabody Museum in the 1890's). The label bears the catalogue number for the model and identifies it as a "Chinese Boat" and gives the date "ca. 1840". Although it is unsure whether the date refers to the year the model was acquired by the Peale Museum or if it is the date of manufacture of the model, the dates on other labels and the inexact phrasing suggest that it is the latter.

The fact that the ship is a war junk is suggested by the extensive amount of miniature weaponry that is included in the model. Some of the most notable weapons are a pair of firearms mounted to the railing of the ship. The guns are mounted on a swivel mechanism and appear to have a relatively wide bore compared to a musket, although smaller compared to European cannons. A significant detail of the guns is that they appear to represent breech loading (loaded from the back of the barrel instead of the front) weapons since they have what appears to be a removable breech block (Figure 2). Taking these factors into account, the guns most likely represent a pair of gingall. These were breech-loading matchlock (fired using a burning match)



Fig. 2: Detail of miniature gun breech. Rattan shields and staff weapons can be observed in the background.

weapons around seven feet long and weighing about 12 pounds (Figure 3). On junks, they were usually mounted just as they appear on the model: a form of rowlock mounted on the bulwarks (Worcester, 1966). They typically fired two-ounce bullets or an assortment of shrapnel, and were used from the sixteenth

century until as late as 1945 (Worcester, 1970). Other weapons on the model include an assortment of pole arms such as pikes, gundao, and ji. Lastly, several rattan shields are mounted to the bulwarks. These would have been used to provide protection against lighter firearms and other projectile weapons. This weaponry is consistent with a Qing Dynasty war junk of the early nineteenth century (Rawlinson, 1967).

The war junk represented by the model is was likely an ocean going vessel. The ship has a relatively deep rounded hull with a large keel and a large rudder (See Fig. 1), elements which would provide more stability in deeper open waters. The sails fitted on the model are typical of ocean going junks. They sport a relatively small amount of bamboo battens (the thin strips that go across the sail), four to six, and they have a hunchback shaped leech (aft edge of the sail) (See Fig. 1). The hull and sail shape also allows us to identify the ship as a southern vessel (Worcester, 1966: 18-19). Based on the regional variations illustrated by Worcester (Figure 4), the vessel's rounded yet shallow bow shows a hybrid Kwangtung/Fukien style while a rounded stern and large fenestrated square rudder suggest a clearer Kwangtung style. Ocean going junks were more common in these southern regions of China due to the abundance of protected coves and harbors which allowed ships with deep hulls to seek shelter during typhoons (Worcester 1966: 16).

The date of the model, the weaponry and the hull design all help to place the ship in the context of the First Opium War. The war, fought between Britain and China between 1839 and 1842 over opium trade disagreements, was a turning point in modern Chinese history, especially regarding military technology. The war mainly consisted of maritime encounters between British



Fig. 3: Diagram of a breech loading gingall mounted on a rowlock (Worcester, 1966: 43).

frigates and steamers and Chinese war junks commanded by the Green Standard Army that were easily won by Britain's technologically superior navy. After the war, China began a movement towards modernization that would remove junks from combat (Rawlinson, 1967: 2-3). The estimated date of the model places it during the period of the war. Further evidence for this context comes from the design of the junk itself. The junk is a two masted vessel, which is consistent with the light craft depicted by traditional Chinese sketches of war junks from the period prior to and during the war. The light haphazard armament used on board, most

Fig. 4: Regional hull shape variations as illustrated by Worcester (1966: 17). The top two types are southern models that show relatively deep ocean going hulls while the bottom two are northern styles with flatter bottoms.



significantly the rattan shields and gingall, are consistent with British eyewitness accounts from the war and with the standard armament of the Green Standard Army that manned the vessels (Rawlinson, 1967: 6). Before the war, these vessels were used mainly for coastal patrol and anti-piracy operations. The light armament was sufficient for those purposes but was no match for British weaponry and within twenty years significant changes had taken

effect and the trend toward modernization had begun. (Periodical, 1857; Rawlinson, 1967: 4).

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